

## REMARKS/ARGUMENTS

Claims 1 and 3 to 27 are pending in the present application, of which claims 1, 14, 15, 21 and 27 are the independent claims currently under consideration. In the above amendments, claims 1, 15 and 21 have been amended to incorporate subject matter from claims 2, 17 and 23, respectively. Claim 2 has been cancelled as redundant, without prejudice or disclaimer of the subject matter thereof.

Claims 1 to 8 and 12 to 27 are rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 7,016,651 (“Narasimhan”); claim 9 is rejected under 35 U.S.C. §103(a) over Narasimhan in view of U.S. Patent No. 7,197,085 (“Vella-Coleiro”); claim 10 is rejected under 35 U.S.C. §103(a) over Narasimhan in view of U.S. Patent No. 6,757,241 (“Jones”); and claim 11 is rejected under 35 U.S.C. §103(a) over Narasimhan in view of Jones and further in view of U.S. Patent No. 6,549,561 (“Crawford”). Applicant has reviewed the applied references and respectfully submits that the claimed invention is patentably distinguishable over the applied references for at least the following reasons.

The applied references are not seen to disclose or suggest the features of the claimed invention, particularly with respect to at least the features of (i) averaging received power with at least one previously stored received power measurement for an unassigned sub-carrier frequency band (as in claim 1); (ii) averaging the power of a signal with previously stored values to generate a noise estimate (as in claims 14 and 27); and (iii) determining an average noise estimate based in part on a noise estimate and a previously stored noise estimate (as in claims 15 and 21).

Narasimhan is seen to be directed to measuring signal quality in a communications link supporting OFDM symbol transfer across plural sub-carriers. Narasimhan, Abstract. The Office Action cites col. 7, ll. 29-38 of Narasimhan as allegedly teaching averaging received power with at least one previously stored received power measurement for an unassigned sub-carrier frequency band. Office Action, p. 3. The cited portion of Narasimhan, however, discloses determining  $SNR_{geo}$  based upon “the geometric mean of the difference between the soft and scaled hard decisions for each sub-carrier.” The Office Action appears to assert that this determining a geometric mean of decisions for *each sub-carrier* corresponds to the averaging the power of a signal with *previously stored values* of the claimed invention. Applicant respectfully

disagrees with this interpretation of Narasimhan. In this regard, Narasimhan is understood to disclose averaging SNR values across multiple frequencies (*e.g.*, different sub-carriers in an OFDM system), but instantaneously in time (*i.e.*, without reference to previously stored values for received power measurements, noise estimates, *etc.*).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987); *see also* MPEP § 2131.

Because Narasimhan fails to disclose or suggest the features of amended independent claims 1, 14, 15, 21 and 27, at least with respect to the features of (i) averaging received power with at least one previously stored received power measurement for an unassigned sub-carrier frequency band, (ii) averaging the power of a signal with previously stored values to generate a noise estimate, and (iii) determining an average noise estimate based in part on a noise estimate and a previously stored noise estimate, these claims are believed to be patentably distinguishable over the applied reference, and reconsideration and withdrawal of the 35 U.S.C. § 102(e) rejection of these claims are respectfully requested.

Vella-Coleiro, Jones and Crawford, which were used in the rejection of certain dependent claims, are not seen to remedy the foregoing deficiencies of Narasimhan. Vella-Coleiro is seen to be generally directed to frequency-dependent magnitude pre-distortion for reducing spurious emissions. *See* Vella-Coleiro, Abstract. Jones is seen to be generally directed to a spatial processor that exploits signals that arrive via multiple outputs of a communication channel to provide soft decision values. *See* Jones, Abstract. Crawford is seen to be generally directed to a pilot phase tracking loop for an OFDM receiver. *See* Crawford, Abstract. Nowhere is Vella-Coleiro, Jones or Crawford seen to disclose or suggest averaging received power with at least one previously stored received power measurement for an unassigned sub-carrier frequency band, averaging the power of a signal with previously stored values to generate a noise estimate, or determining an average noise estimate based in part on a noise estimate and a previously stored noise estimate. Accordingly, the applied references, whether taken alone or in combination, are not seen to disclose or suggest the features of amended independent claims 1, 14, 15, 21 and 27.

The other claims currently under consideration in the application are dependent from the independent claims discussed above and therefore are believed to be allowable over the applied

references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

### CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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